

What is claimed is:

1. An image reading apparatus having a reading mode for reading an image on a still document and a reading mode for reading an image on a moving document, comprising;

5 a first reading station for reading an image of a still document,

a second reading station situated adjacent to the first reading station for reading an image on one surface of a moving document,

10 a third reading station situated adjacent to the second reading station at a side opposite to the second reading station for reading an image on the other surface of the moving document,

15 first reading means arranged to move for reading the image of the still document at the first reading station and to be disposed immovably for reading the image on the one surface of the moving document at the second reading station,

second reading means for reading the image on the other surface of the document moving at the third reading station situated at a side opposite to the second reading means,

20 a supply tray to stack the document located above the first reading station,

a transport path to guide the document on the supply tray to the second reading station and the third reading station, and

25 a discharge tray to store the document read at the second reading section and the third reading station.

2. An image reading apparatus according to claim 1, wherein said first reading means and said second reading means are arranged to

sandwich the transport path.

3. An image reading apparatus according to claim 2, wherein said first reading means is immovably located in a position at least partly overlapping the second reading means in a vertical direction to read the document passing through the second reading means.

4. An image reading apparatus according to claim 3, wherein said first reading means is an optical reduction system and comprises a first carriage having a light source for illuminating the document, a lens to collect light, a second carriage having a mirror to guide light from the document to the lens, and an image sensor to convert the light collected at the lens into electrical signals, said second carriage being immovably located in the position overlapping the second reading means in the vertical direction when reading the document passing through the second reading station.

5. An image reading apparatus according to claim 4, wherein said second reading means is a contact image reading unit including a light source for illuminating the document, a SELFOC lens for collecting light, and an image sensor with a sensor array for converting the light collected in the lens by the sensor array into electrical signals.

6. An image reading apparatus according to claim 1, further comprising supply means for supplying the document on the supply tray to the second reading station, discharge means for discharging the document passing through the second reading station and the

third reading station to the discharge tray, said transport path extending in a same direction as a supply direction of the document supplied by the supply means and a discharge direction discharged by the discharge means.

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7. An image reading apparatus having a mode for reading an image on a still document and a reading mode for reading an image on a moving document, comprising;

10 a first reading station having a first platen glass to support a still document for reading an image of the still document,

15 a second reading station having a second platen glass situated adjacent to the first platen glass for reading one surface of a moving document, and first guide means facing the second platen glass,

20 a third reading station situated slightly away from the second platen glass and having a contact glass for reading the other surface of the moving document situated at a side opposite to the second reading station, and second guide means adjacent to the second platen glass to face the contact glass,

25 a supply tray situated above the first platen glass to stack the document,

a discharge tray for storing the document that have been read,

a transport path to guide the document on the supply tray to the discharge tray passing through the second platen glass and the contact glass,

first reading means configured to move to read the image on the still document at the first reading station and to be still to read an image on the one surface of the moving document moving on

the second platen glass at the second reading station, and

second reading means for reading the other surface of the document passing through the contact glass at the third reading station.

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8. An image reading apparatus according to claim 7, wherein said first contact glass, said second contact glass and said second guide means are arranged linearly in a horizontal direction.

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9. An image reading apparatus according to claim 8, wherein said first contact glass, said second contact glass and said second guide means are arranged such that document guide surfaces thereof have same heights.

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10. An image reading apparatus according to claim 9, wherein said second platen glass and said second guide means form a continuous flat document guide.

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11. An image reading apparatus according to claim 10, wherein said second platen glass and said contact glass are formed in positions such that the document is simultaneously read by the first reading means and the second reading means.

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12. An image reading apparatus according to claim 11, wherein said first guide means and said contact glass are formed integrally as one unit, and said image reading apparatus further comprising supporting means for swingingly supporting said first guide means and said contact glass.

13. An image reading apparatus according to claim 7, wherein said first reading means is an optical reduction system and comprises a first carriage having a light source for illuminating the document, a lens to collect light, a second carriage having a mirror to guide light from the document to the lens, and an image sensor to convert the light collected from the lens into electrical signals, said second carriage being still below the second platen glass in the vertical direction when reading the document passing through said second reading means.

14. An image reading apparatus according to claim 13, wherein said first carriage and said second carriage are movably supported.

15. An image reading apparatus according to claim 13, wherein said second reading means is a contact image reading unit having a light source for illuminating the document, a SELFOC lens for collecting light and an image sensor having a sensor array for converting the light collected in the lens by the sensor array into electrical signals.

16. An image reading apparatus according to claim 7, further comprising supply means for supplying the document on the supply tray to the second reading station, and discharge means for discharging the document passing through the second reading station and the third reading station to the discharge tray, said transport path extending in a same direction as a supply direction of the document supplied by the supply means and a discharge direction discharged by the discharge means.

17. An image reading apparatus with an automatic document feeder, comprising;

a first contact glass to support a still document for reading the still document,

5 a second platen glass situated adjacent to the first platen glass for reading one side of a moving document,

first guide means formed at a side opposite to the second platen glass,

10 a contact glass formed at a side opposite to the second platen glass with a distance slightly away therefrom for reading the other surface of the moving document,

second guide means situated adjacent to the second platen glass at a side opposite to the contact glass,

15 a supply tray to stack the document arranged above the first platen glass,

a discharge tray for storing the document that has been read,

a transport path to guide the document on the supply tray to the discharge tray passing through the second platen glass and the contact glass,

20 first reading means formed of an optical reduction system and configured to move to read the image of the still document on the first platen glass and to be still to read the image on said one side of the document moving at the second platen glass, and

25 second reading means formed of a contact image sensor for reading the other surface of the document passing through the contact glass,

wherein said first platen glass, said second platen glass and said second guide means are arranged in order in a document

transfer direction on an upper surface of the image reading apparatus.

18. An image reading apparatus according to claim 17, further
5 comprising supply means for supplying the document on the supply
tray to the second reading station, and discharge means for
discharging the document passing through the second reading station
and the third reading station to the discharge tray, said transport
path being formed to extend in a same direction as a supply
10 direction of the document supplied by the supply means and a
discharge direction discharged to the discharge means.

19. An image reading apparatus according to claim 18, wherein said
automatic document feeder comprises said first guide means, said
15 contact glass, said supply tray, said second reading means formed
of a contact image sensor, said supply means, and said discharge
means; and said image reading apparatus comprises said first platen
glass, said second platen glass, said second guide means, said
discharge tray, and said first reading means formed of an optical
20 reduction system.